

The first cable connector includes a first end and a second end, the second end of the first cable connector adapted to engage the first end of the adapter and the first end of the first shell assembly adapted to mate with a first coaxial cable connector. The assembly also includes a second cable connector mounted to the second end of the adapter. The second cable connector including a first end and a second end, the second end of the second cable connector adapted to engage the second end of the adapter and the first end of the second cable connector adapted to mate with a second coaxial cable connector.

The present invention also relates to a coaxial connector assembly with an adapter. The adapter includes a first and a second end, a center conductor and a first outer conductive shell at each end. The center conductors of each end are electrically connected and the first outer conductive shells of each end are electrically connected, and the center conductors are electrically isolated from the first outer conductive shells. The assembly also includes a first cable connector removably mounted to the adapter about the first outer conductive shell at the first end of the adapter.

The first cable connector includes a first center conductor electrically connected to the center conductor of the first end of the adapter, a first conductive front shell electrically connected to the first outer conductive shell of the first end of the adapter, and a first insulator mounted between and electrically isolating the first center conductor and the first conductive front shell. The first cable connector further includes a first end and a second end. The second end of the first cable connector is adapted to releasably engage the first end of the adapter and the first end of the first cable connector is adapted to mate with a first coaxial connector.

The assembly also includes a second cable connector removably mounted to the adapter about the first outer conductive shell at the second end of the adapter. The second cable connector includes a second center conductor electrically connected to the center conductor of the second end of the adapter, a second conductive front shell electrically connected to the first outer conductive shell of the second end of the adapter, and a second insulator mounted between and electrically isolating the second center conductor and the second conductive front shell. The second cable connector further includes a first end and a second end. The second end of the second cable connector is

adapted to releasably engage the second end of the adapter and the first end of the second cable connector is adapted to mate with a first coaxial connector.

The present invention further relates to a coaxial connector adapter with a central housing defining a central axial opening with a first end and a second end. An outer portion of the central housing proximate each end is threaded to receive a conductive outer body. An outer insulator is mounted within the central axial opening of the central housing. A first conductive shell extends through the outer insulator beyond the first and second ends of the central housing. The first conductive shell includes a first end and a second end, each threaded to receive a shell assembly, and the outer insulator electrically isolates the first conductive shell from the central housing. An inner insulator is mounted within the central axial opening of the central housing. A center conductor extends between the first and second ends of the central housing through the central axial opening mounted within the inner insulator.

The present invention still further relates to a triaxial cable connector system with an adapter with first and second ends, a first cable connector mounted to the first end and a second cable connector mounted to the second end. The first cable connector includes a front shell assembly including a conductive front shell and a center conductor mounted within and electrically isolated from the conductive front shell by a center conductor insulator. An outer insulator is positioned about the front shell assembly of the first cable connector and a conductive outer body positioned about the outer insulator and electrically isolated from the front shell assembly. The first cable connector defines a first connector gender and style.

A second cable connector is mounted to the second end of the adapter. The second cable connector includes a front shell assembly including a conductive front shell and a center conductor mounted within and electrically isolated from the conductive front shell by a center conductor insulator. An outer insulator is positioned about the front shell assembly, and a conductive outer body positioned about the outer insulator and electrically isolated from the front shell assembly. The second cable connector defines a second connector gender and style.

The assembly also includes a third cable connector including a front shell assembly including a conductive front shell and a center conductor mounted within and

electrically isolated from the conductive front shell by a center conductor insulator. An outer insulator positioned about the front shell assembly, and a conductive outer body positioned about the outer insulator and electrically isolated from the front shell assembly. The third cable connector defines a third connector gender and style.

5 The center conductor of the first cable connector is electrically connected to center conductor of the second cable connector, the front shell of the first cable connector is electrically connected to the front shell of the second cable connector, and the conductive outer body of the first cable connector is electrically connected to the conductive outer body of the second cable connector. Either of the first or the second
10 cable connector may be removed from the adapter and replaced with the third cable connector so that the center conductor of the third cable connector.

 The present invention also relates to a method of assembling a triaxial cable connector adapter. The method includes providing an adapter housing with first and second ends. A first cable connector is selected having a first gender selected from a
15 plurality of genders and a first style selected from a plurality of styles. The first cable connector is mounted the first cable connector to the first end of the adapter housing. A second cable connector is selected having a second gender selected from a plurality of genders and a second style selected from a plurality of styles. The second cable connector is mounted to the second end of the adapter housing.

Brief Description of the Drawings

20 The accompanying drawings, which are incorporated in and constitute a part of the description, illustrate several aspects of the invention and together with the detailed description, serve to explain the principles of the invention. A brief description
25 of the drawings is as follows:

 FIG. 1 is a perspective view of a triaxial cable connector adapter according to the present invention, with opposing male ends of a first format mounted.

 FIG. 2 is a perspective view of the triaxial cable connector adapter of FIG. 1, with the first end exploded.

30 FIG. 3 is a perspective view of the triaxial cable connector adapter of FIG. 1, with the second end exploded.

FIG. 4 is a side cross-sectional view of the triaxial cable connector adapter of FIG. 1.

FIG. 5 is a perspective view of the universal adapter of triaxial cable connector adapter of FIG. 1.

5 FIG. 6 is an exploded perspective view of the triaxial cable connector universal adapter of FIG. 5.

FIG. 7 is an end view of the triaxial cable connector universal adapter of FIG. 5.

10 FIG. 8 is a side cross-sectional view of the triaxial cable connector universal adapter, taken along line 8-8 in FIG. 7.

FIG. 9 is a perspective view of the triaxial cable connector universal adapter of FIG. 5, with opposing male ends of a second format mounted.

FIG. 10 is a perspective view of the triaxial cable connector adapter of FIG. 9, with the first end exploded.

15 FIG. 11 is a perspective view of the triaxial cable connector adapter of FIG. 9, with the second end exploded.

FIG. 12 is a perspective view of the triaxial cable connector universal adapter of FIG. 5, with a first female end of the first format and an opposing male second end of the second format mounted.

20 FIG. 13 is a perspective view of the triaxial cable connector adapter of FIG. 12, with the first end exploded.

FIG. 14 is a second perspective view of the triaxial cable connector adapter of FIG. 12, with the second end exploded.

25 FIG. 15 is a perspective view of the triaxial cable connector adapter of FIG. 5, with opposing female ends of the second format mounted.

FIG. 16 is a perspective view of the triaxial cable connector adapter of FIG. 15, with the first end exploded.

FIG. 17 is a second perspective view of the triaxial cable connector adapter of FIG. 15, with the second end exploded.

30 FIG. 18 is a perspective view of the triaxial cable connector adapter of FIG. 5, with opposing male ends of the third format mounted.

FIG. 19 is a perspective view of the triaxial cable connector adapter of FIG. 18, with the first end exploded.

FIG. 20 is a perspective view of the triaxial cable connector adapter of FIG. 18, with the second end exploded.

5 FIG. 21 is a perspective view of the triaxial cable connector adapter of FIG. 5, with a first male end of the first format and an opposing second female end of the second format mounted.

FIG. 22 is a perspective view of the triaxial cable connector adapter of FIG. 21, with the first end exploded.

10 FIG. 23 is a second perspective view of the triaxial cable connector adapter of FIG. 21, with the second end exploded.

FIG. 24 is a perspective view of the triaxial cable connector adapter of FIG. 5, with opposing female ends of the first format mounted.

15 FIG. 25 is a perspective view of the triaxial cable connector adapter of FIG. 24, with the first end exploded.

FIG. 26 is a perspective view of the triaxial cable connector adapter of FIG. 24, with the second end exploded.

FIG. 27 is a perspective view of the triaxial cable connector adapter of FIG. 5, with opposing female ends of the third format mounted.

20 FIG. 28 is a perspective view of the triaxial cable connector adapter of FIG. 27, with the first end exploded.

FIG. 29 is a perspective view of the triaxial cable connector adapter of FIG. 27, with the second end exploded.

25 FIG. 30 is a perspective view of the triaxial cable connector adapter of FIG. 5, with a first female end of the third format and an opposing second female end of the second format mounted.

FIG. 31 is a perspective view of the triaxial cable connector adapter of FIG. 30, with the first end exploded.

30 FIG. 32 is a second perspective view of the triaxial cable connector adapter of FIG. 30, with the second end exploded.

FIG. 33 is a perspective view of the triaxial cable connector adapter of FIG. 5, with a first male end of the first format and an opposing second male end of the third format mounted.

FIG. 34 is a perspective view of the triaxial cable connector adapter of FIG. 33, with the first end exploded.

FIG. 35 is a second perspective view of the triaxial cable connector adapter of FIG. 33, with the second end exploded.

Detailed Description

Reference will now be made in detail to exemplary aspects of the present invention which are illustrated in the accompanying drawings. Wherever possible, the same reference numbers will be used throughout the drawings to refer to the same or like parts.

It is common for coaxial cables, such as triaxial cables, which are used to communicate electronic signals, to be terminated by a cable connector at one or both ends of the cable. To use these cables in the field or in the studio, a mating cable connector of the same style and opposite gender may be required. Typical genders are defined as male and female, while styles for such connectors include Global, U.S., BBC, and others. These styles are physically directly compatible with each other, meaning that a male Global style connector may not mate with a female U.S. connector. When such an incompatibility situation occurs, retermination of one or both of the cables or equipment to which the cable connectors may be a solution to electrically joining the two cables. Alternatively, fixed adapters may have been used which permit incompatible cable connectors to be mated. However, these known adapters are only be configured to mate with and join two distinct cable connectors. To ensure that joining of cables is possible without knowing the particular cable connectors, an entire array of cable connector adapters would be required to connect each known gender and style combination to each other known style and gender combination.

FIG. 1 illustrates a triaxial cable connector assembly 10 with a first triaxial cable connector 12 mounted to a first end 14 of an adapter housing 16 and a second triaxial cable connector 18 mounted to a second end 20 of adapter housing 16. First and

second ends 14 and 20 of adapter housing 16 are shown in FIG. 5, below. First cable connector 12 includes a mating end 22 for receiving a mating triaxial cable connector and second cable end 18 includes a mating end 24 for receiving a mating triaxial connector. As shown in FIG. 1, both mating end 22 and mating end 24 define a male connector end of a first style of triaxial connector. Additional triaxial cable connectors defining alternative genders and styles will be shown and described below. Each of these different triaxial cable connectors may be mounted to one of first end 14 or second end 20 of adapter housing 16.

Referring now to FIGS. 2 and 3, adapter 10 is shown with each of the cable connectors 12 and 18 in an exploded view. Each cable connector 12 and 18 includes a front shell assembly 26 with a center conductor 28, a center conductor insulator 30 and a front shell 32. Each cable connector 12 and 18 include an outer conductive body 34 which is mounted about and electrically isolated from front shell assembly 26 by an outer insulator 36. Additional details of these elements of the cable connectors may be found in U.S. Patents Nos. 6,561,848 and 6,575,786, the disclosures of which are incorporated herein by reference.

As shown in FIG. 2, adapter 16 includes a first outer conductive shell 38 with an outer threaded portion 40 at first end 14. A first center conductor 42 is positioned within first outer conductive shell 38. First outer conductive shell 38 is mounted within an insulator 44 which is mounted within an adapter body 46. Adapter body 46 includes a threaded portion 48 toward first end 14. Adapter body 46 is electrically conductive and electrically isolated from first outer conductive shell 38 by insulator 44. Front shell assembly 26 of first cable connector 14 is mounted to adapter 16 by threading onto threaded portion 40. When front shell assembly 26 is mounted to adapter 16, center conductor 28 of first cable connector 14 is electrically connected with center conductor 42 of adapter 16 and front shell 32 is electrically connected to first outer conductive shell 38 of adapter 16. Outer conductive body 34 of first cable connector 14 is mounted to adapter 16 by threading onto threaded portion 48 of adapter body 46. When outer conductive body 34 is mounted to adapter 16, front outer body 34 is electrically connected to adapter body 46.

As shown in FIG. 3, adapter 16 includes a second outer conductive shell 50 with an outer threaded portion 52 at second end 20. A second center conductor 54 is positioned within second outer conductive shell 50 (shown in FIGS. 5 and 6, below). Second outer conductive shell 50 is mounted within an insulator 56 which is mounted within adapter body 46. Adapter body 46 includes a threaded portion 58 toward second end 18. Adapter body 46 is electrically conductive and electrically isolated from second outer conductive shell 50 by insulator 56. Front shell assembly 26 of second cable connector 18 is mounted to adapter 16 by threading onto threaded portion 52. When front shell assembly 26 is mounted to adapter 16, center conductor 28 of second cable connector 18 is electrically connected with center conductor 54 of adapter 16 and front shell 32 is electrically connected to second outer conductive shell 50 of adapter 16. Outer conductive body 34 of second cable connector 18 is mounted to adapter 16 by threading onto threaded portion 58 of adapter body 46. When outer conductive body 34 is mounted to adapter 16, front outer body 34 is electrically connected to adapter body 46.

When assembled as shown in FIGS. 1 and 4, adapter 10 provides electrical continuity between center conductors 28 of first cable connector 14 and second cable connector 18. This continuity is provided by a central shaft 60 connected center conductors 42 and 54. Adapter 10 also provides electrical continuity between front shell 32 of first cable connector 14 and second cable connector 18. This continuity is provided by the connection of first conductive outer shell 38 and second conductive outer shell 50 within an opening 62 extending through adapter body 46. Central shaft 60 also extends through opening 62 through outer conductive shells 38 and 50, which are hollow. Central shaft 60 and center conductors 42 and 54 are electrically isolated from outer conductive shells 38 and 50 by two pairs of adapter center conductor insulators halves 64. Adapter 10 further provides electrical continuity between conductive outer bodies 34 of first cable connector 14 and second cable connector 18. This continuity is provided through adapter body 46, which is preferably constructed of an electrically conductive material.

Referring now to FIG. 5, adapter body 46 includes a center section 66 midway between the first and second ends 14 and 20. Center section 66 includes a plurality of opposing wrench flats 68 to aid in assembly and disassembly of adapter 16 into cable connector assembly 10.

Referring now to FIGS. 6, 7 and 8, adapter 16 may also include a pair of O-rings 70 which are positioned within a groove 72 adjacent each of the threaded portions 48 and 58 of adapter body 46. First outer conductive shell 38 includes a narrow inner end 74 which is sized to be received within an enlarged opening 76 in an inner end 77 of second conductive outer shell 50. Preferably, a friction or press fit holds the two conductive outer shells together. First conductive outer shell 34 defines a central longitudinal opening 78 and second conductive outer shell 50 defines a central longitudinal opening 80. Central longitudinal openings 78 and 80 cooperate to form an opening 82 through adapter 16 within which are positioned center conductors 42 and 51, center conductor insulators 64 and shaft 60.

FIGS. 1 to 8 show adapter 16 with a particular style and gender of cable connectors 12 and 18 mounted to first end 14 and second end 20, respectively. As shown, cable connectors 12 and 18 define male Global style connectors. A variety of other styles and genders of cable connectors may be used with the same adapter 16. A first alternative cable connector assembly 100 is shown in FIGS. 9 to 11, where a first cable connector 102 defines a male U.S. style connector with first mating end 22. A second cable connector 104 defines a male U.S. style connector with second mating end 24. Cable connectors 102 and 104 are mounted about first end 14 and second end 18, respectively, of adapter 16.

Cable connector 102 includes a front shell assembly 106 mounted threaded portion 40 of adapter 16, and a conductive outer body 108 mounted to threaded portion 48 of adapter 16. Front shell assembly 106 includes a center conductor 112 positioned within an inner insulator 114 which is in turn positioned within a front shell 116. Center conductor 112 is connected to center conductor 42 of adapter 16 and electrically isolated from front shell 116 by inner insulator 114. An outer insulator 110 is positioned between and electrically isolates front shell assembly 106 and conductive outer body 108. Cable connector 104 also includes front shell assembly 106 mounted threaded portion 52 of adapter 16, and conductive outer body 108 mounted to threaded portion 58 of adapter 16. Center conductor 112 of cable connector 104 is connected with center conductor 51 of adapter 16. Cable connector 104 also includes outer insulator 110

positioned between and electrically isolates front shell assembly 106 and conductive outer body 108.

The electrical connectivity within cable connector assembly 100 between conductive outer shells 108, the front shells 116 and center conductors 112 of cable connectors 102 and 104 is similar to that described above with regard to cable connector assembly 10. Ends 22 and 24 are configured to mate with different style and gender triaxial cable connectors, otherwise cable connector assemblies 10 and 100 are functional identical.

FIGS. 12 to 14 show a second alternative embodiment cable connector assembly 120 with an adapter 16, a first cable connector 122 and a second cable connector 124. First cable connector 122 of cable connector assembly 120 defines a female Global style connector with first mating end 22. Second cable connector 124 defines a male U.S. style connector with second mating end 24. First cable connector 122 includes a front shell assembly 126 mounted to threaded portion 40 of adapter 16 and an outer conductive body 128 mounted to threaded portion 48 of adapter 16, about first end 14. An outer insulator 130 is positioned between and electrically isolates front shell assembly 126 and outer conductive body 128.

Second cable connector 124 includes a front shell assembly 132 mounted to threaded portion 52 of adapter 16 and an outer conductive body 134 mounted to threaded portion 58 of adapter 16, about second end 20. An outer insulator 136 is positioned between and electrically isolates front shell assembly 132 and outer conductive body 134. The electrical connectivity between front shell assemblies 126 and 132, and outer conductive bodies 128 and 134 is similar to that described above with to cable connector assembly 10. Ends 22 and 24 are configured to mate with different style and gender triaxial cable connectors, otherwise cable connector assemblies 10 and 120 are functional identical.

FIGS. 15 to 17 show a third alternative embodiment cable connector assembly 140 with an adapter 16, a first cable connector 142 and a second cable connector 144. First cable connector 142 of cable connector assembly 140 defines a female U.S. style connector with first mating end 22. Second cable connector 144 defines a female U.S. style connector with second mating end 24. First cable connector

142 includes a front shell assembly 146 mounted to threaded portion 40 of adapter 16 and an outer conductive body 148 mounted to threaded portion 48 of adapter 16, about first end 14. An outer insulator 150 is positioned between and electrically isolates front shell assembly 146 and outer conductive body 148.

5 Second cable connector 144 includes a front shell assembly 152 mounted to threaded portion 52 of adapter 16 and an outer conductive body 154 mounted to threaded portion 58 of adapter 16, about second end 20. An outer insulator 156 is positioned between and electrically isolates front shell assembly 152 and outer conductive body 154. The electrical connectivity between front shell assemblies 146 and 152, and outer conductive bodies 148 and 154 is similar to that described above with to cable connector assembly 10. Ends 22 and 24 are configured to mate with different style and gender triaxial cable connectors, otherwise cable connector assemblies 10 and 140 are functional identical.

FIGS. 18 to 20 show a fourth alternative embodiment cable connector assembly 160 with an adapter 16, a first cable connector 162 and a second cable connector 164. First cable connector 162 of cable connector assembly 160 defines a male BBC style connector with first mating end 22. Second cable connector 164 defines a male BBC style connector with second mating end 24. First cable connector 162 includes a front shell assembly 166 mounted to threaded portion 40 of adapter 16 and an outer conductive body 168 mounted to threaded portion 48 of adapter 16, about first end 14. An outer insulator 170 is positioned between and electrically isolates front shell assembly 166 and outer conductive body 168.

20 Second cable connector 164 includes a front shell assembly 172 mounted to threaded portion 52 of adapter 16 and an outer conductive body 174 mounted to threaded portion 58 of adapter 16, about second end 20. An outer insulator 176 is positioned between and electrically isolates front shell assembly 172 and outer conductive body 174. The electrical connectivity between front shell assemblies 166 and 172, and outer conductive bodies 168 and 174 is similar to that described above with to cable connector assembly 10. Ends 22 and 24 are configured to mate with different style and gender triaxial cable connectors, otherwise cable connector assemblies 10 and 160 are functional identical.

FIGS. 21 to 23 show a fifth alternative embodiment cable connector assembly 180 with an adapter 16, a first cable connector 182 and a second cable connector 184. First cable connector 182 of cable connector assembly 180 defines a male Global style connector with first mating end 22. Second cable connector 184 defines a female U.S. style connector with second mating end 24. First cable connector 182 includes a front shell assembly 186 mounted to threaded portion 40 of adapter 16 and an outer conductive body 188 mounted to threaded portion 48 of adapter 16, about first end 14. An outer insulator 190 is positioned between and electrically isolates front shell assembly 186 and outer conductive body 188.

Second cable connector 184 includes a front shell assembly 192 mounted to threaded portion 52 of adapter 16 and an outer conductive body 194 mounted to threaded portion 58 of adapter 16, about second end 20. An outer insulator 196 is positioned between and electrically isolates front shell assembly 192 and outer conductive body 194. The electrical connectivity between front shell assemblies 186 and 192, and outer conductive bodies 188 and 194 is similar to that described above with to cable connector assembly 10. Ends 22 and 24 are configured to mate with different style and gender triaxial cable connectors, otherwise cable connector assemblies 10 and 180 are functional identical.

FIGS. 24 to 26 show a sixth alternative embodiment cable connector assembly 200 with an adapter 16, a first cable connector 202 and a second cable connector 204. First cable connector 202 of cable connector assembly 200 defines a female Global style connector with first mating end 22. Second cable connector 204 defines a female Global style connector with second mating end 24. First cable connector 202 includes a front shell assembly 206 mounted to threaded portion 40 of adapter 16 and an outer conductive body 208 mounted to threaded portion 48 of adapter 16, about first end 14. An outer insulator 210 is positioned between and electrically isolates front shell assembly 206 and outer conductive body 208.

Second cable connector 204 includes a front shell assembly 212 mounted to threaded portion 52 of adapter 16 and an outer conductive body 214 mounted to threaded portion 58 of adapter 16, about second end 20. An outer insulator 216 is positioned between and electrically isolates front shell assembly 212 and outer

conductive body 214. The electrical connectivity between front shell assemblies 206 and 212, and outer conductive bodies 208 and 214 is similar to that described above with to cable connector assembly 10. Ends 22 and 24 are configured to mate with different style and gender triaxial cable connectors, otherwise cable connector assemblies 10 and 200 are functional identical.

FIGS. 27 to 29 show a seventh alternative embodiment cable connector assembly 220 with an adapter 16, a first cable connector 222 and a second cable connector 224. First cable connector 222 of cable connector assembly 220 defines a female BBC style connector with first mating end 22. Second cable connector 224 defines a female BBC style connector with second mating end 24. First cable connector 222 includes a front shell assembly 226 mounted to threaded portion 40 of adapter 16 and an outer conductive body 228 mounted to threaded portion 48 of adapter 16, about first end 14. An outer insulator 230 is positioned between and electrically isolates front shell assembly 226 and outer conductive body 228.

Second cable connector 224 includes a front shell assembly 232 mounted to threaded portion 52 of adapter 16 and an outer conductive body 234 mounted to threaded portion 58 of adapter 16, about second end 20. An outer insulator 236 is positioned between and electrically isolates front shell assembly 232 and outer conductive body 234. The electrical connectivity between front shell assemblies 226 and 232, and outer conductive bodies 228 and 234 is similar to that described above with to cable connector assembly 10. Ends 22 and 24 are configured to mate with different style and gender triaxial cable connectors, otherwise cable connector assemblies 10 and 220 are functional identical.

FIGS. 30 to 32 show an eighth alternative embodiment cable connector assembly 240 with an adapter 16, a first cable connector 242 and a second cable connector 244. First cable connector 242 of cable connector assembly 240 defines a female BBC style connector with first mating end 22. Second cable connector 244 defines a female U.S. style connector with second mating end 24. First cable connector 242 includes a front shell assembly 246 mounted to threaded portion 40 of adapter 16 and an outer conductive body 248 mounted to threaded portion 48 of adapter 16, about first

end 14. An outer insulator 250 is positioned between and electrically isolates front shell assembly 246 and outer conductive body 248.

Second cable connector 244 includes a front shell assembly 252 mounted to threaded portion 52 of adapter 16 and an outer conductive body 254 mounted to threaded portion 58 of adapter 16, about second end 20. An outer insulator 256 is positioned between and electrically isolates front shell assembly 252 and outer conductive body 254. The electrical connectivity between front shell assemblies 246 and 252, and outer conductive bodies 248 and 254 is similar to that described above with to cable connector assembly 10. Ends 22 and 24 are configured to mate with different style and gender triaxial cable connectors, otherwise cable connector assemblies 10 and 240 are functional identical.

FIGS. 33 to 35 show a ninth alternative embodiment cable connector assembly 260 with an adapter 16, a first cable connector 262 and a second cable connector 264. First cable connector 262 of cable connector assembly 260 defines a male Global style connector with first mating end 22. Second cable connector 264 defines a male BBC style connector with second mating end 24. First cable connector 262 includes a front shell assembly 266 mounted to threaded portion 40 of adapter 16 and an outer conductive body 268 mounted to threaded portion 48 of adapter 16, about first end 14. An outer insulator 270 is positioned between and electrically isolates front shell assembly 266 and outer conductive body 268.

Second cable connector 264 includes a front shell assembly 272 mounted to threaded portion 52 of adapter 16 and an outer conductive body 274 mounted to threaded portion 58 of adapter 16, about second end 20. An outer insulator 276 is positioned between and electrically isolates front shell assembly 272 and outer conductive body 274. The electrical connectivity between front shell assemblies 266 and 272, and outer conductive bodies 268 and 274 is similar to that described above with to cable connector assembly 10. Ends 22 and 24 are configured to mate with different style and gender triaxial cable connectors, otherwise cable connector assemblies 10 and 260 are functional identical.

First and second mating ends 22 and 24 may be configured to mate with other current or future triaxial cable connectors through the use of different front shell

assemblies, outer conductive bodies, and outer insulators. Alternatively, adapter 16 may be configured with mating ends 22 and 24 that mate with coaxial cable connectors with different front shell assemblies.

5 To convert mating end 22 to mate with a different gender or style of cable connector, the outer conductive body would be removed from the threaded portion 48 of adapter 16. Then, the outer insulator is removed from the front shell assembly and the front shell assembly removed from threaded portion 40 of first end 14 of adapter 16. A different combination of front shell assembly and outer conductive body are then mounted to threaded portions 40 and 48, respectively, with an appropriate outer insulator
10 positioned between. Mating end 24 may be converted using a similar method.

The embodiments of the inventions disclosed herein have been discussed for the purpose of familiarizing the reader with novel aspects of the present invention. Although preferred embodiments have been shown and described, many changes, modifications, and substitutions may be made by one having skill in the art without
15 unnecessarily departing from the spirit and scope of the present invention. Having described preferred aspects and embodiments of the present invention, modifications and equivalents of the disclosed concepts may readily occur to one skilled in the art. However, it is intended that such modifications and equivalents be included within the scope of the claims which are appended hereto.

20